WHAT IS CLAIMED IS:

1.   A process of placing objects in a rectangle comprising steps of:

     a)   placing the objects in the rectangle;

     b)   evaluating coordinates of the objects; and

     c)   adjusting the coordinates of the objects to establish a substantially uniform density of objects in the rectangle.

2.   The process of claim 1, further comprising:

     d)   after step c), evaluating coordinates of the objects, and

     e)   re-positioning objects.

3.   The process of claim 2, wherein the objects include fixed objects and non-fixed objects, and step b) is applied to non-fixed objects and step d) is applied to fixed and non-fixed objects.

4.   The process of claim 1, wherein the objects include fixed objects and non-fixed objects, and step b) is applied to non-fixed objects.

5.   The process of claim 1, wherein the objects include wires and cells connected by wires and step b) comprises:

     b1)   evaluating wire coordinates based on cell coordinates, and

b2) evaluating cell coordinates based on wire coordinates.

6.   The process of claim 1, wherein the objects include wires and cells connected by wires and step b) comprises:

b1) assigning wires to positions between cells to which the respective wire is connected, and

b2) assigning new cell coordinates to connect the cells to their respective wires.

7.   The process of claim 1, wherein step c) comprises:

c1) dividing the rectangle into first and second rectangles having equal free areas,

c2) dividing the rectangle into third and fourth rectangles having equal areas of objects, and

c3) adjusting coordinates of the objects based on boundaries between the first and second rectangles and between the third and fourth rectangles.

8.   The process of claim 1, wherein the objects are megacells, logic cells and flip-flop cells, and the process is applied to placing the megacells, logic cells and flip-flop cells an integrated circuit, the process further comprising:

d) before step a) creating clusters of logic cells and flip-flop cells.

9.   The process of claim 8, wherein step d) comprises:

    d1)   creating a cluster for each flip-flop cell,

    d2)   creating a cluster for each logic cell in a path that does not terminate at a flip-flop cell, and

    d3)   assigning each logic cell in a path that terminates at a flip-flip cell to the cluster of a flip-flop cell at the termination of the respective path.

10.   The process of claim 8, wherein step d3) comprises:

    if the path begins and ends at respective flip-flop cells, assigning the corresponding logic cell to the cluster of the flip-flop cell closest to the logic cell, and

    if the path begins or ends, but not both, at a flip-flop cell, assigning the corresponding logic cell to the cluster of the flip-flop cell.

11.   A process of creating a substantially uniform density of objects in a rectangle comprising steps of:

    a)   dividing the rectangle into first and second rectangles having equal free areas,

    b)   dividing the rectangle into third and fourth rectangles having equal areas of objects, and

c) adjusting coordinates of the objects based on boundaries between the first and second rectangles and between the third and fourth rectangles.

12. A computer usable medium having a computer readable program embodied therein for addressing data to place representations of objects in a representation of a rectangle, the computer readable program comprising:

first computer readable program code for causing the computer to place representations of the objects in the representation of the rectangle;

second computer readable program code for causing the computer to evaluate coordinates of the objects; and

third computer readable program code for causing the computer to adjust the coordinates of the objects to' establish a substantially uniform density of representations of objects in the representation of the rectangle.

13. The computer usable medium of claim 12, further comprising:

fourth computer readable program code for causing the computer to evaluate the adjusted coordinates of the objects, and

fifth computer readable program code for causing the computer to re-position the representations of the objects.

14.   The computer usable medium of claim 13, wherein the objects include fixed objects and non-fixed objects, and the second computer readable program code is applied to representations of non-fixed objects and the fourth computer readable program code is applied to representations of fixed and non-fixed objects.

15.   The computer usable medium of claim 12, wherein the objects include fixed objects and non-fixed objects, and the second computer readable program code is applied to representations of non-fixed objects.

16.   The computer usable medium of claim 12, wherein the objects include wires and cells connected by wires and the second computer readable program code comprises:

computer readable program code for causing the computer to evaluate wire coordinates based on cell coordinates, and

computer readable program code for causing the computer to evaluate cell coordinates based on wire coordinates.

17.   The computer usable medium of claim 12, wherein the third computer readable program code comprises:

computer readable program code for causing the computer to divide the representation of the rectangle into representations of first and second rectangles having equal free areas,

computer readable program code for causing the computer to divide the representation of the rectangle into representations of third and fourth rectangles having equal areas of objects, and

computer readable program code for causing the computer to adjust coordinates of the objects based on boundaries between the representations of the first and second rectangles and between the representations of the third and fourth rectangles.

18.   The computer usable medium of claim 12, wherein the objects are megacells, logic cells and flip-flop cells, and the computer readable program is applied to placing representations of the megacells, logic cells and flip-flop cells a representation of an integrated circuit, the computer readable program further comprising:

fourth computer readable program code for causing the computer to creating representations of clusters of logic cells and flip-flop cells.

19.   The computer usable medium of claim 18, wherein the fourth computer readable program code comprises:

computer readable program code for causing the computer to create a representation of a cluster for each flip-flop cell,

computer readable program code for causing the computer to create a representation of a cluster for each logic cell in a path that does not terminate at a flip-flop cell, and

computer readable program code for causing the computer to assign a representation of each logic cell in a path that terminates at a flip-flip cell to the representation of the cluster of a flip-flop cell at the termination of the respective path.